

# Hybrid Circuit

- Power Profiling Control Circuit
- Commercial Components, Battery
- High Density Circuit
- 8 Puff Delivery (20-30 Watt-Seconds)
- Single Battery System
- 10 x 25 mm Circuit Size Goal  
(Custom Circuit, Battery  
Alternatives)



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*270*  
Dec. version

smaller circuit

puff on demand logic

single battery operation

8 puff article

~~20-27~~ joules (watt-seconds)

improved puff sensor (4 x sensitivity, 1/5 power consumption)

article logic always powered

6 integrated circuits

Jan. version

~~20x~~ thinner than Dec. version

~~25-35~~ joules (watt-seconds)

56 grams vs 80 grams

powered only when flavor insert (load) plugged in

5 integrated circuits vs *6*

Siliconix dual FETs (field effect transistors) 2:1 size reduction

Lower FET "on-resistance" (trapped voltage gate drive)

optimized current paths (lower circuit resistance)

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## Electronic Module

- Microcomputer Based
- Control Functionality Is Programmable
- Complex Circuit
- Two Separate Battery Systems
- 160 Puffs (10 Watt-Seconds)



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## 1/2 Sized Circuit

- Puff-On-Demand Control Circuit
- Commercial Components and Battery
- High Density Printed Circuit
- Novel Packaging
- New Puff Sensor
  - 1/5 Power of Motorola Sensor
  - 4X Sensitivity
  - Reduced Circuit Complexity
- 8 Puff Delivery (20-30 Watt-Seconds)
- Single Battery for Logic and Heaters



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